Fooling Mother Nature

By Kathleen S. Ziprik

Even When the Weather Doesn’t Cooperate, an Alternative Exterior Sheathing Is Allowing the Work to Continue—and the Structures to Persevere.

Paperless exterior sheathing was used in the Lexington Square life-center in Elmhurst, Ill.

We all know that Mother Nature usually gets her way, but architects and builders in Chicago, Atlanta, Hawaii and Las Vegas are testing her strength by using a new generation of “paperless” exterior sheathing called Dens-Glass® Gold from Georgia-Pacific.

The Chill in Chicago

Chicago builder John Samatas says weather resistancy was one of the chief reasons to use the product instead of conventional gypsum sheathing.

“We knew we couldn’t finish our project until spring, but we wanted to move ahead with interior construction,” Samatas says.

The sheathing was used in the Lexington Square life-care center in Elmhurst, Ill., just outside Chicago. This $36 million, seven-story, 322-unit retirement center contains four wings with a restaurant, pool room, exercise rooms, woodworking area, activities room and 10 lounges for various activities.

The panels may be applied directly to structural framing as a single-ply backing for a variety of exterior surfaces or cladding materials. Both vertical and horizontal applications are acceptable. In this project, the product was used in two specific applications. First it was used in the conventional manner, as exterior sheathing. The other application was a bit more unusual, but it allowed work to continue through the harsh Chicago winter.

The exterior finish was applied to Dens-Glass® Gold panels in an indoor manufacturing facility. This facility was set up to allow workers to apply the exterior finish on the ground, rather than at heights of up to seven stories. All together, the gypsum sheathing was applied to more than 150,000 square feet of wall surface area.

For the prefabricated panels, a cementitious stucco product was applied in the manufacturing facility. The average finished panel was 20 feet by 3 feet on up. All were affixed to 16-gauge 3½ inch studs, then moved to the building site for erection. About 60 percent of the building’s exterior finish was prepared on-site by field application, while the balance was being prefabricated.

Downpours in Atlanta

In Atlanta, where a product’s ability to withstand exposure to heavy rains, moisture or blazing sun is a determining factor in product selection, the Greenbrier apartment complex job used approximately 130,000 square feet of Dens-Glass® Gold, which was applied to its fully exposed exterior vertical walls.

Bob Olson, vice president of con-
Construction for Atlanta-based Home Equities, says the exterior sheathing product was the right choice because of Atlanta’s frequent heavy rainfall during spring and early summer, when buildings may take longer than projected to reach a dried-out state. As a result, the exterior sheathing may be exposed to the elements for many months.

One of the properties that makes this product stand up to the elements is glass mat facings embedded on both sides and along the edges of the core, which add strength and avoid potential delamination or separation of the facings from the core when panels are exposed to moisture and weathering. To add further moisture protection, it has a patented, silicone-treated core that has better water-resistant qualities than conventional gypsum sheathing core. It also has a “gold” alkali-resistant coating to provide a strong bonding surface for the EIFS adhesives while providing a more water-resistant surface.

Viewed as an alternative substrate to paperfaced gypsum sheathing for EFS, exterior insulation finish systems and brick veneer exteriors, the product also comes with a six-month exposure warranty against outside elements and a five-year limited warranty against manufacturing defects.

Hurricanes in Hawaii

Protection is exactly what Group 70 International, a Hawaii-based architectural firm, was looking for when the architect team decided to use Dens-Glass® Gold on The Point at Poipu condominium on the island of Kauai in Hawaii. Together with the project’s general contractor, Fletcher Pacific Construction Company, the team had their decision tested when Hurricane Iniki hit the island—and their “under construction” project in September 1992.

“The constant sea spray hitting the building was the key mason we specified the product for this project,” says Chuck Schriever, senior construction administrator with Group 70 International. “We knew it gave the condos more structural stability than regular gypsum board could have. We also trusted the product for moisture protection. However, with the kind of winds that hit the island during the storm, we were frankly amazed that the structure held up so well.”

Sweetering in Vegas


“While this product has only been on the market since 1986, it has an excellent track record. I’ve talked with both architects and contractors who have used the product in commercial applications and they expressed a deep confidence in the results,” said Jeff Anderson, residential division manager.

The resulting home will be showcased during the National Association of Home Builders show, Jan. 25-27 in Las Vegas.

About the Author

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